

[0245] Although the above examples describe embodiments of the invention operating within an electronic device **10** or apparatus, it would be appreciated that the invention as described below may be implemented as part of any audio processing stage within a chain of audio processing stages.

[0246] Furthermore user equipment, universal serial bus (USB) sticks, and modem data cards may comprise audio capture apparatus such as the apparatus described in embodiments above.

[0247] It shall be appreciated that the term user equipment is intended to cover any suitable type of wireless user equipment, such as mobile telephones, portable data processing devices or portable web browsers.

[0248] Furthermore elements of a public land mobile network (PLMN) may also comprise audio capture and processing apparatus as described above.

[0249] In general, the various embodiments described above may be implemented in hardware or special purpose circuits, software, logic or any combination thereof. For example, some aspects may be implemented in hardware, while other aspects may be implemented in firmware or software which may be executed by a controller, microprocessor or other computing device, although the invention is not limited thereto. While various aspects of the invention may be illustrated and described as block diagrams, flow charts, or using some other pictorial representation, it is well understood that these blocks, apparatus, systems, techniques or methods described herein may be implemented in, as non-limiting examples, hardware, software, firmware, special purpose circuits or logic, general purpose hardware or controller or other computing devices, or some combination thereof.

[0250] The embodiments of the application may be implemented by computer software executable by a data processor, such as in the processor entity, or by hardware, or by a combination of software and hardware. Further in this regard it should be noted that any blocks of the logic flow as in the Figures may represent program steps, or interconnected logic circuits, blocks and functions, or a combination of program steps and logic circuits, blocks and functions. The software may be stored on such physical media as memory chips, or memory blocks implemented within the processor, magnetic media such as hard disk or floppy disks, and optical media such as for example digital versatile disc (DVD), compact discs (CD) and the data variants thereof both.

[0251] The memory may be of any type suitable to the local technical environment and may be implemented using any suitable data storage technology, such as semiconductor-based memory devices, magnetic memory devices and systems, optical memory devices and systems, fixed memory and removable memory. The data processors may be of any type suitable to the local technical environment, and may include one or more of general purpose computers, special purpose computers, microprocessors, digital signal processors (DSPs), application specific integrated circuits (ASIC), gate level circuits and processors based on multi-core processor architecture, as non-limiting examples.

[0252] Embodiments of the inventions may be practiced in various components such as integrated circuit modules. The design of integrated circuits is by and large a highly automated process. Complex and powerful software tools are available for converting a logic level design into a semiconductor circuit design ready to be etched and formed on a semiconductor substrate.

[0253] Programs, such as those provided by Synopsys, Inc. of Mountain View, Calif. and Cadence Design, of San Jose, Calif. automatically route conductors and locate components on a semiconductor chip using well established rules of design as well as libraries of pre-stored design modules. Once the design for a semiconductor circuit has been completed, the resultant design, in a standardized electronic format (e.g., Opus, GDSII, or the like) may be transmitted to a semiconductor fabrication facility or "fab" for fabrication.

[0254] The foregoing description has provided by way of exemplary and non-limiting examples a full and informative description of the exemplary embodiment of this invention. However, various modifications and adaptations may become apparent to those skilled in the relevant arts in view of the foregoing description, when read in conjunction with the accompanying drawings and the appended claims. However, all such and similar modifications of the teachings of this invention will still fall within the scope of this invention as defined in the appended claims.

[0255] As used in this application, the term circuitry may refer to all of the following: (a) hardware-only circuit implementations (such as implementations in only analogue and/or digital circuitry) and (b) to combinations of circuits and software (and/or firmware), such as and where applicable: (i) to a combination of processor(s) or (ii) to portions of processor(s)/software (including digital signal processor(s)), software, and memory(ies) that work together to cause an apparatus, such as a mobile phone or server, to perform various functions) and (c) to circuits, such as a microprocessor(s) or a portion of a microprocessor(s), that require software or firmware for operation, even if the software or firmware is not physically present.

[0256] This definition of circuitry applies to all uses of this term in this application, including in any claims. As a further example, as used in this application, the term circuitry would also cover an implementation of merely a processor (or multiple processors) or portion of a processor and its (or their) accompanying software and/or firmware. The term circuitry would also cover, for example and if applicable to the particular claim element, a baseband integrated circuit or applications processor integrated circuit for a mobile phone or a similar integrated circuit in server, a cellular network device, or other network device.

[0257] The term processor and memory may comprise but are not limited to in this application: (1) one or more microprocessors, (2) one or more processor(s) with accompanying digital signal processor(s), (3) one or more processor(s) without accompanying digital signal processor(s), (3) one or more special-purpose computer chips, (4) one or more field-programmable gate arrays (FPGAs), (5) one or more controllers, (6) one or more application-specific integrated circuits (ASICs), or detector(s), processor(s) (including dual-core and multiple-core processors), digital signal processor(s), controller(s), receiver, transmitter, encoder, decoder, memory (and memories), software, firmware, RAM, ROM, display, user interface, display circuitry, user interface circuitry, user interface software, display software, circuit(s), antenna, antenna circuitry, and circuitry.

1-36. (canceled)

37. A method comprising:

determining a peak energy level for an audio frame of a band limited audio signal;

determining that the peak energy level is a maximum peak energy level by determining that the peak energy level